reference nucleotide sequence selected from the group consisting of sequences of SEQ ID NOs: 1 to 15 and their complementary sequences.

SUB D1) 3. (Twice Amended) Nucleic material of the retroviral genomic type according to claim 1, comprising a nucleic fragment inserted between two sequences corresponding respectively to the LTR region and to the gag gene for the retroviral genomic structure.

B4 cancel 4. (Amended) Nucleic material of the subgenomic retroviral type, consisting of a nucleotide sequence identical to SEQ ID NO: 11, with at least one deletion.

B5 7. (Twice Amended) A nucleotide fragment of at least 100 bases, comprising a nucleotide sequence selected from the group consisting of:

a) all the nucleotide sequences, partial and complete, of a nucleic material according to claim 1;

b) all the nucleotide sequences, partial and complete, of a clone selected from the group consisting of:

SUB D1) cl.6A2 (SEQ ID NO: 1),

cl.6A1 (SEQ ID NO: 2),

cl.7A16 (SEQ ID NO: 3),

cl.Pi22 (SEQ ID NO: 4),

cl.24.4 (SEQ ID NO: 5),

cl.C4C5 (SEQ ID NO: 6),

cl.PH74 (SEQ ID NO: 7),

cl.PH7 (SEQ ID NO: 8),

cl.Pi5T (SEQ ID NO: 9),

cl.44.4 (SEQ ID NO: 10),

HERV-W (SEQ ID NO: 11)

cl.6A5 (SEQ ID NO: 12),

cl.7A20 (SEQ ID NO: 13),

cl.7A21 (SEQ ID NO: 14), and

LTR (SEQ ID NO: 15);

c) the sequences which are respectively complementary to the sequences according to a) and b); and

SUB D1 cont

d) the sequences which are respectively equivalent to the sequences according to a), b) and c).

8. (Twice Amended) A nucleic probe for the detection of a nucleic material, wherein said nucleic probe is capable of hybridizing specifically with the reference nucleotide sequence of the nucleic material according to claim 1.

B5 cont'd

9. (Amended) A probe according to claim 8, comprising a marker.

10. (Twice Amended) A nucleic primer for the amplification by polymerization of an RNA or of a DNA, comprising a nucleotide sequence capable of hybridizing specifically with the reference nucleotide sequence of the nucleic material according to claim 1.

11. (Amended) A nucleic probe or nucleic primer, comprising a nucleotide sequence selected from the group consisting of SEQ ID NOs: 16 to 28.

12. (Amended) An RNA or DNA, comprising a nucleotide fragment according to claim 7.

13. (Amended) A peptide encoded by any open reading frame belonging to a nucleotide fragment according to claim 7.

14. (Amended) A peptide according to claim 13, wherein said peptide is encoded by a nucleotide fragment comprising an open reading frame encoding one or more retroviral ENV proteins.

18. (Amended) A method for the molecular labeling of at least one member selected from the group consisting of an autoimmune disease, a pathology associated with an autoimmune disease, a pathological pregnancy, and an unsuccessful pregnancy, comprising:

identifying and/or quantifying any nucleotide fragment according to claim 7 in any biological body material.

19. (Amended) The method according to claim 18, further comprising:

detecting cells expressing the nucleotide fragment in said biological body material.

20. (Twice Amended) A diagnostic or therapeutic composition comprising a nucleic material according to claim 1.

Please add new claims 21-38 as follows:

--21. A method of diagnosing an autoimmune disease, a pathology associated with an autoimmune disease, a pathological pregnancy, or an unsuccessful pregnancy, said method comprising:

obtaining a biological sample;

contacting said biological sample with a molecular marker comprising a nucleic material according to claim 1; and

detecting for said molecular marker.--

--22. A method of diagnosing susceptibility to an autoimmune disease or a pathology associated with an autoimmune disease, a risk of a pathological pregnancy, or a risk of an unsuccessful pregnancy, said method comprising:

obtaining a biological sample;

contacting said biological sample with a chromosomal marker comprising a nucleic material according to claim 1; and

detecting for said chromosomal marker.--

--23. A method of detecting a gene associated with susceptibility to an autoimmune disease or a pathology associated with an autoimmune disease, a risk of a pathological pregnancy, or a risk of an unsuccessful pregnancy, said method comprising:

obtaining a biological sample;

B6 contacting said biological sample with a proximity marker comprising a nucleic material according to claim 1; and

detecting for said proximity marker.--

--24. Nucleic material according to claim 1, wherein said equivalent sequences exhibit, for any sequence of 100 contiguous monomers, at least 70% homology with said sequences of SEQ ID NOs: 1 to 15, respectively.--

--25. Nucleic material according to claim 1, wherein said equivalent sequences exhibit, for any sequence of 100 contiguous monomers, at least 90% homology with said sequences of SEQ ID NOs: 1 to 15, respectively.--

--26. Nucleic material according to claim 2, wherein said polypeptide exhibits, for any contiguous sequence of at least 30 amino acids, at least 90% identity with a peptide sequence capable of being encoded by at least a functional part of said reference nucleotide sequence.--

SUB P3

--27. Nucleic material of the retroviral genomic type according to claim 2, comprising a nucleic fragment inserted between two sequences corresponding respectively to the LTR region and to the gag gene for said retroviral genomic structure.--

--28. Nucleic material according to claim 27, wherein said nucleic fragment comprises the sequence of SEQ ID NO: 12.--

--29. Nucleic material according to claim 3, wherein said nucleic fragment comprises the sequence of SEQ ID NO: 12.--

--30. Nucleic material according to claim 4, wherein said nucleotide sequence comprises a sequence selected from the group consisting of the sequences of SEQ ID NOs: 7, 8 and 9.--

--31. Nucleic material according to claim 4, comprising at least one functional nucleotide sequence encoding at least one retroviral protein.--

--32. Nucleic material according to claim 4, comprising at least one regulatory nucleotide sequence.--

--33. A nucleotide fragment according to claim 7, wherein said equivalent sequences exhibit, for any sequence of 100 contiguous monomers, at least 50% homology with the sequences according to a), b) and c).--

--34. A nucleotide fragment according to claim 7, wherein said equivalent sequences exhibit, for any sequence of 100 contiguous monomers, at least 70% homology with the sequences according to a), b) and c).--

--35. A nucleotide fragment according to claim 7, wherein said equivalent sequences exhibit, for any sequence of 100 contiguous monomers, at least 90% homology with the sequences according to a), b) and c).--

--36. A replication vector, comprising a nucleotide fragment according to claim 7.--

--37. The peptide of claim 13, wherein said peptide comprises an oligopeptide that forms an antigenic determinant recognized by sera from patients affected by an autoimmune disease, a pathology associated with an autoimmune disease, a pathological pregnancy, or an unsuccessful pregnancy.--

--38. The method of claim 18, wherein said biological body material comprises a body fluid.--